AR G3 Series Enterprise Router
Product Brochure

HUAWEI TECHNOLOGIES CO., LTD.

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Huawei AR G3 series enterprise routers (AR G3) are next-generation routers dedicated for enterprise customers. Based on Huawei's proprietary Versatile Routing Platform (VRP), the AR G3 takes advantages of Huawei's long-term accumulation in data communication, wireless, access network, and core network fields. The AR G3 integrates routing, switching, 3G, WLAN, voice, and security functions, uses the multi-core CPU and non-blocking switching structure, and provides industry-leading system performance and extensibility, which meets customers' requirements for diversified service development. As an integrated solution for enterprise networks, the AR G3 speeds up multi-service development while protecting existing investments.

AR3260	AR2240	AR2220	AR1220W/AR1220VW
Headquarter	Medium Branch	Medium Branch	Small Branch

AR1220V	AR1220	AR1220-D	AR208E
Small Branch	Small Branch	Small Branch	SOHO & SMB

AR207V/AR207V-P	AR207G-HSPA+7	AR207	AR206
SOHO & SMB	SOHO & SMB	SOHO & SMB	SOHO & SMB

AR201	AR158E	AR157	AR156
SOHO & SMB	Small Branch	SOHO & SMB	SOHO & SMB

AR151
SOHO & SMB

The AR G3 supports various interface cards, including Ethernet interface cards, E1/T1/PRI/VE1 interface cards, synchronous/asynchronous interface cards, ADSL2+/G.SHDSL/VDSL2 interface cards, FXS/FXO voice cards, ISDN interface cards, EPON/GPON interface cards and 3G interface cards. Depending on the slot type, these cards are classified into Smart Interface Cards (SICs), Double-Width SICs (WSICs), and Double-Height WSICs (XSICs).
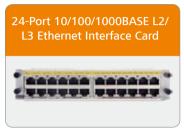
The following figures show the appearances of main interface cards.

Channelized E1/T1/PRI Multiflex Trunk Interface Card	Ethernet WAN Interface Card	Sync/Async Serial WAN Interface Card

ADSL2+ANNEX A/M WAN Interface Module	ADSL2+ANNEX B WAN Interface Module	4Pair G.SHDSL WAN Interface Module
8-Port 10/100BASE and 1-Port 10/100/1000BASE L2/L3 Ethernet Interface Card	24-Port 10/100/1000BASE L2/L3 Ethernet Interface Card	4-Port FXS and 1-Port FXO Voice Interface Card
16-Port FXS Voice Interface Card	32-Port FXS Voice Interface Card	4-Port FXO Voice Interface Card

Product Features

- **3rd** Generation and High Performance

  - Multi-core CPU and distributed service processing to double the performance than other products in the industry
  - A switching capacity of 160 Gbit/s to ensure non-blocking service operation
  - Excellent quality and high reliability

- **2-mode** Network and Flexible Access

  - Seamless integration of wired and 3G (wireless) networks
  - 24-port gigabit Ethernet board card
  - Large bandwidth and highly reliable PON access

- All-in-**1** and More Benefits

  - Unified office (unified communication, PBX, etc.)
  - Open Service Platform (OSP) for cooperation with partners
  - Unified and mature VRP platform

Typical Applications

Voice Gateway	Broadband & Leased Line	3G wireless backup	One-stop GE Access	Value-added Service Platform

ARG3 Series
Enterprise Routers

The AR G3 is creatively designed to provide an all-in-one access solution for enterprise and industry customers.

Technical Specifications

The following table lists the technical specifications of AR1200&AR2200&AR3200 Series routers.

Item	AR1220	AR1220-D	AR1220V /1220VW	AR1220W	AR2220	AR2240	AR3260
Forwarding performance (64 Byte)	450 Kpps	450 Kpps	450 Kpps	450 Kpps	1 Mpps	2 Mpps (With SRU40) 4 Mpps (With SRU80)	2 Mpps (With SRU40) 4 Mpps (With SRU80)
WAN speed with services	200 Mbps	200 Mbps	200 Mbps	200 Mbps	400 Mbps	600 Mbps (With SRU40) 1800 Mbps (With SRU80)	600 Mbps (With SRU40) 1800 Mbps (With SRU80)
Firewall performance (large packets)	900 Mbps	900 Mbps	900 Mbps	900 Mbps	1.9 Gbps	5.5 Gbps (With SRU40) 9.5 Gbps (With SRU80)	5.5 Gbps (With SRU40) 9.5 Gbps (With SRU80)
Switching capacity	8 Gbps	8 Gbps	8 Gbps	8 Gbps	32 Gbps	80 Gbps	160 Gbps
IPSec VPN Tunnels	2000	2000	2000	2000	4000	4000 (With SRU40) 6000 (With SRU80)	4000 (With SRU40) 6000 (With SRU80)
Fixed Ethernet ports	2 GE 8 FE	2 GE 8 FE	2 GE 8 FE(4 FE support PoE)	2 GE 8 FE(4 FE support PoE)	3 GE (1 Combo)	3 GE (2 Combo)	3 GE (2 Combo)
SIC slots	2	2	2	2	4	4	4
WSIC slots (default/max**)	0/1	0/1	0/1	0/1	2/4	2/4	2/4
XSIC slots (default/max**)	0/0	0/0	0/0	0/0	0/2	2/4	4/6
DSP	-	-	32 channels DSP	-	1 DSP Slot	3 DSP Slots	3 DSP Slots

Item	AR1220	AR1220-D	AR1220V /1220VW	AR1220W	AR2220	AR2240	AR3260
USB 2.0 ports	2						
Memory	512 MB	512 MB	512 MB	512 MB	2 GB	2 GB	2 GB
Flash	256 MB	256 MB	256 MB	256 MB	16 MB	16 MB	16 MB
Micro SD (default/max)	-	-	-	-	2 GB/4 GB	2 GB/4 GB	2 GB/4 GB
Max. power	54 W	54 W	54 W	54 W	150 W	350 W (Single Power Module)/700 W (Dual Power Module)	350 W (Single Power Module)/700 W (Dual Power Module)
AC power	100 V-240 V; Frequency: 50 Hz/60 Hz	-	100 V-240 V; Frequency: 50 Hz/60 Hz				
DC Power	-	-42V~-53V	-	-	-48 V~-60 V		
Dimensions (W x D x H)	44.5mm x 390 mm x 220 mm	44.5mmx 390 mm x 220 mm	44.5mm x 390 mm x 220 mm	44.5mmx 390 mm x 220 mm	44.5mmx 442 mm x 420 mm	88.1mm x 442 mm x 470 mm	130.5mm x 442 mm x 470 mm
Ambient temperature	0--40°C						
Relative humidity	5 - 90% (non-condensing)						
WAN interfaces	Ethernet, CE1/CT1, E1/T1, ADSL2+, G.SHDSL, Sync/Async Serial, ISDN, CPOS, EPON/GPON						
LAN	IEEE 802.1P, IEEE 802.1Q, IEEE 802.3, VLAN management, MAC address management, MSTP						
Basic feature	DHCP server/client/relay, PPPoE server/client, PPPoA server/client, PPPoEoA server/client, NAT, Sub interface management						
Voice	RTP, SIP, SIP AG, IP PBX/TDM PBX, FXO/FXS, VoIP/Conference call, BESA, DISA, SBC, H.323 gatekeeper						
WLAN	AP management, WLAN QoS (WMM), WLAN security (WEP/WPA/WPA2/key management), WLAN radio management (802.11b/g/n), WLAN user management						
3G	CDMA 2000 EV-DO Rev A, WCDMA, individual 3G uplink/backup link						
IPv4 unicast routing	Routing policy, static route, RIP v1/v2, OSPF, IS-IS, BGP						
IPv6 unicast routing	Routing policy, static route, RIPng, OSPFv3, IS-ISv6, BGP4+						
Multicast	IGMP V1/V2/V3, IGMP-Snooping V1/V2/V3(not supported on AR1200 series), PIM SM, PIM DM, MSDP						
MPLS	LDP, MPLS L3 VPN, static LSP, dynamic LSP, MPLS TE, IP FRR, LDP FRR, TE FRR						
VPN	IPSec VPN, GRE VPN, DSVPN, SSL VPN, L2TP VPN						
QoS	Diffserv mode, MPLS QoS, priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance (based on IP precedence/DSCP WRED), congestion management (LAN interface: SP/WRR/SP+WRR; WAN interface: PQ/CBWFQ), MQC (traffic classifier, traffic behavior, and traffic policy), H-QoS, WLAN QoS, FR QoS, Smart Application Control (SAC)						
Security	ACL, firewall, 802.1x authentication, MAC address authentication(not supported on AR1200 series), Web authentication(not supported on AR1200 series), AAA authentication, RADIUS authentication, HWTACACS authentication, broadcast storm suppression, ARP security, ICMP attack defense, URPF, IP Source Guard(not supported on AR1200 series), DHCP snooping(not supported on AR1200 series), CPCAR, blacklist, IP source tracing						
Management and maintenance	Upgrade management, device management, web-based GUI, GTL, SNMP(v1/v2c/v3), RMON, NTP, CWMP, Auto-Config, deployment using USB disk, NetConf, CLI						

Note**: The maximum number of slots contains the number of all combined slots.

The following table lists the technical specifications of AR150&AR200 Series routers.

Item	AR201/ AR151	AR206/ AR156	AR207/ AR157	AR207V	AR207V-P	AR207G-HSPA+7	AR208E/ AR158E
Forwarding performance (64 Byte)	450 Kpps/ 300 Kpps	450 Kpps/ 300 Kpps	450 Kpps/ 300 Kpps	450 Kpps	450 Kpps	450 Kpps	450 Kpps/ 300 Kpps
WAN speed with services	150 Mbps/ 100 Mbps	150 Mbps/ 100 Mbps	150 Mbps/ 100 Mbps	150 Mbps	150 Mbps	150 Mbps	150 Mbps/ 100 Mbps
IPSec VPN Tunnels	75/30	75/30	75/30	75	75	75	75/30
Fixed WAN ports	2*FE(the interface LAN 0 of which can be used as one WAN interface)	1 ADSL2+ Annex B, 1*FE(the interface LAN 0 of which can be used as one WAN interface)	1 ADSL2+ Annex A/ M, 1*FE(the interface LAN 0 of which can be used as one WAN interface)	1 ADSL2+ Annex A/ M, 1*FE(the interface LAN 0 of which can be used as one WAN interface)	1 ADSL2+ Annex A/ M, 1*FE(the interface LAN 0 of which can be used as one WAN interface)	1 ADSL2+ Annex A/ M, 1*FE(the interface LAN 0 of which can be used as one WAN interface)	1 G.SHDSL 8-wire, 1*FE(the interface LAN 0 of which can be used as one WAN interface)
Fixed Ethernet switching ports	8 FE/4 FE	8 FE/4 FE	8 FE/4 FE	8 FE	8 FE(8 FE support PoE)	8 FE	8 FE/4 FE
Fixed voice ports	-	-	-	4 FXS, 1 FXO	4 FXS, 1 FXO	-	-
Integrated 3G	-	-	-	-	-	WCDMA HSPA+7	-
USB 2.0 ports	1						
Serial auxiliary /console ports	1						
Memory size (default/maximum)	512 MB						
Flash memory (default/maximum)	512 MB						
Maximum power	36W (AR201) 24W (AR151)	36W (AR206) 24W (AR156)	36W (AR207) 24W (AR157)	36 W	36 W	36 W	36W (AR208E) 24W (AR158E)
Power supply (AC)	100 V to 240 V						
Frequency	50/60 Hz						
Dimensions (H x W x D)	44.5 mm x 300 mm x 220 mm (1.75 in. x 11.8 in. x 8.66 in.)						
Operating temperature	0°C to 40°C						
Relative humidity	5% to 90% (non-condensing)						
Basic feature	DHCP server/client/relay, PPPoE server/client, PPPoA server/client, PPPoEoA server/client, NAT, TCP, UDP, ARP, Sub interface management						
WAN Standards compliance	IEEE802.3, IEEE802.3u, IEEE802.3ab	ITU-T 992.1 G.DMT ANSI T1.413 Issue 2 ITU-T 992.3 ITU-T 992.5	ITU-T 992.1 G.DMT ITU-T 992.3 ITU-T 992.5				G.SHDSL.bit ITU-T G.991.2
WAN Transmission rate	100Mbit/s	A downstream transmission rate of 8 Mbit/s and an upstream transmission rate of 1024 kbit/s	ADSL full rate mode (ITU-T 992.1 G.DMT): a downstream transmission rate of 8 Mbit/s and an upstream transmission rate of 1024 kbit/s ADSL2 full rate mode (ITU-T 992.3): a downstream transmission rate of 12 Mbit/s and an upstream transmission rate of 1024 kbit/s ADSL2+ full rate mode (ITU-T 992.5): a downstream transmission rate of 24 Mbit/s and an upstream transmission rate of 1024 kbit/s				5.696 Mbit/s per pair

Item	AR201/ AR151	AR206/ AR156	AR207/ AR157	AR207V	AR207V-P	AR207G-HSPA+7	AR208E/ AR158E
Voice	RTP, SIP, SIP AG, IP PBX/TDM PBX, FXO/FXS, VoIP						
LAN	IEEE 802.1P, IEEE 802.1Q, IEEE 802.3, VLAN management, MAC address management, MSTP, etc.						
IPv4 unicast routing	Routing policy, static route, RIP v1/v2, OSPF, IS-IS, BGP						
IPv6 unicast routing	Routing policy, static route, RIPng, OSPFv3, IS-ISv6, BGP4+						
Multicast	IGMP version1/2/3, PIM SM, PIM DM, MSDP						
VPN	IPSec VPN, GRE VPN, DSVPN, SSL VPN, L2TP VPN						
QoS	Diffserv mode, Priority mapping, traffic policing (CAR), traffic shaping, congestion avoidance (based on IP precedence/DSCP WRED), congestion management (LAN interface: SP/WRR/SP+WRR; WAN interface: PQ/CBWFQ), MQC (traffic classification, traffic behavior, and traffic policy), H-QoS						
Security	ACL, firewall, 802.1x authentication, AAA authentication, RADIUS authentication, HWTACACS authentication, broadcast storm suppression, ARP security, ICMP attack defense, URPF, CPCAR, blacklist, IP source tracing, PKI						
Management and maintenance	Upgrade management, device management, web-based GUI, GTL, SNMP(v1/v2c/v3), RMON, NTP, CWMP, Auto-Config, site deployment using USB disk, NetConf, CLI						